

SCIENCE & GOVERNMENT REPORT

24th Year of Publication
The Independent Bulletin of Science Policy

Volume XXIV, No. 17

P. O. Box 6226A, Washington, D. C. 20015

© November 1, 1994

Top Agriculture R&D Post Vacant for Nearly 2 Years

The Clinton Administration has stumbled for the second time in trying to fill the US Department of Agriculture's top research post, which now ranks as one of the longest-running senior vacancies in the US government.

The job used to carry the title of Assistant Secretary for Science and Education, with jurisdiction over Ag's research agencies, the Extension Service, and various academically related functions. The overall budget is about \$1.1 billion. In the recent reorganization of the Department, the job was expanded to include economics and statistics, and the title was upgraded to Under Secretary for Research, Education, and Economics. Under either title, the post has been filled on an acting basis since Clinton took office.

The most recent recruit for the job, Jose Amador, quit Washington on October 7 and returned to his former job as Director of the Texas A&M University Research and Extension Center at Weslaco. Unofficially on board for four months while awaiting Senate confirmation, Amador explained his departure to SGR last week by saying: "My blood pressure was up and I had family problems."

"Nature" Raps Rival "Science"—P.4 Engineers Due for Ballot Battle—P.5

One veteran Ag watcher, however, suggested to SGR that after taking a close look at the job, Amador felt that it involved more than he cared to tackle.

Amador's exit came nearly a year after his predecessor on the brink of office, Luis Sequeira, of the University of Wisconsin, Madison, quit in disgust. He complained that two months after the White House had publicly named him for the post, it had failed to produce a formal nomination or follow the custom of bringing him in as a consultant to gain familiarity with the job [SGR, November 1, 1993: "Agriculture Post Gets Zoe Baird Treatment"]. He said he was in no-man's land, with his calls unanswered and no information provided about his fate. Sequeira alleged that his nomination was scuttled by Health and Human Services Secretary Donna Shalala to settle old scores from her days as Chancellor on the Madison campus. She denied it. The search for a candidate then resumed, but without too much urgency.

It wasn't until last May—seven months after Sequeira returned to Madison—that the White House announced its intention to nominate Amador, who fared better than Sequeira in two respects: pending nomination, he received a consulting appointment that unofficially put him on the job, and the

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Clinton's Science Council Ponders What It Should Do

Most of the members were purring with public and private expressions of satisfaction after a day and a half startup meeting last week of the President's Committee of Advisors on Science and Technology (PCAST). The distinguished assemblage of 18 plus the President's S&T Advisor received briefings on what's happened so far under Bill Clinton in S&T-related matters, and they staked out general areas of interest on which they might provide counsel. And then they left, agreeing it was a good start. Left hanging was what happens next.

The main uncertainty concerns PCAST's role in coming aboard halfway through a Presidential term in which many S&T policies have been devised and implemented without

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In Brief

Among the items listed in a memo by Republican staff of the House Budget Committee last week as possible cuts in federal spending to implement the "Contract With America" recently proclaimed by Republican Congressional candidates: elimination of the Advanced Technology Program at the National Institute of Standards and Technology. Also on the list: "Limit rate of growth for the National Science Foundation," "Reduce Agricultural Research Service," and abolish the Bureau of Mines, the Geological Survey, and the National Biological Survey.

Science and engineering PhDs awarded by American universities rose from about 20,000 to 25,000 between 1988 and 1993, NSF reports, with foreign students on temporary visits increasing from about 7000 to 10,000. PhD awards in the "natural sciences"—physical, earth, atmospheric, oceanographic, mathematics, computer, and agricultural sciences—totaled 12,555, of which 4057 were on student visas. The engineering awards totaled 5696 last year, about evenly divided between foreign and domestic students. The numbers are in a two-page NSF Data Brief 94-314, available without charge from: NSF Division of Science Resources Studies, Arlington, Va. 22230; tel. 703/306-1780; fax 703/644-4278.

Also from the same NSF source: a report on industrial R&D spending in 1992—essentially flat in real terms, according to Data Brief 94-317.

The job market for chemists is wretched but improving slightly, according to a special report in the October 24 issue of Chemical & Engineering News, published by the American Chemical Society. The main improvement was seen for bachelor degree holders. The PhD market was reported still weak.

... Health, Environment, Etc. Selected for Agenda

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the assistance of a PCAST. The Committee, a descendent of White House science councils in previous administrations, underwent a long gestation due to nothing but the difficulty of lining up members, verifying their purity to exacting federal standards, and finding a common meeting date for 18 heavily scheduled people. Even so, several members were absent for one or another day of the meeting, and two of them, Sally Ride and Francisco Ayala, didn't make it at all.

The sessions for the formal agenda were open to public and press, possibly a concession to successful litigation against closed sessions of the Bush version of PCAST under the "sunshine" provisions of the Federal Advisory Committee Act. However, the Committee met privately for dinner on two nights, and spent a private hour and a quarter with Vice President Gore.

Though the members expressed eagerness to be useful to their country, the potential is clouded by the impecunious condition of the White House science and technology apparatus, secretariat for PCAST. Like much else in the Executive Branch, it has been loaded with additional duties and starved of staff as good-faith evidence of the Clinton Administration's commitment to reduce government. Advisor John Gibbons noted that the Pentagon's Defense Science Board possesses twice the budget of his shop, the Office of Science and Technology Policy (OSTP).

PCAST, the highest ranking S&T advisory body in the federal establishment, will meet three times a year, according to present plans—thus defying a fundamental rule of success in Washington: Be there.

Nonetheless, a sunny, upbeat mood pervaded the meetings, as the members received crash courses on the goals and constraints of the Clinton Administration in research-related matters. Possible agenda items drawn up by OSTP provided an inventory of expectable topics—R&D investment, technology transfer from federal and university labs to industry, new roles for the federal labs, health research, the care and feeding of academic science, etc. Starting from these cues, PCAST members made their own suggestions, and settled on five broad areas (though what they will do about them was left unsettled): education, environment, health, investment, and national security and international affairs.

On the second day of the meeting, a question much on the minds of all the members was directed to Gibbons by Phillip Sharp, Nobel-laureate Chairman of the MIT Biology Department: "What output do you want from us?"

Gibbons and members of his staff said they would welcome brief critiques of strategic plans now in the final stages of preparation by nine committees that constitute the National Science and Technology Council, another annex of the White House S&T operation. Due in about six weeks, the papers are supposed to lay out priorities and plans for just about every area of federal R&D activity, as encompassed in the NSTC committee structure: health, safety, and food;

Roster of the President's Committee of Advisors on Science and Technology:

Co-Chairs: John Gibbons, Assistant to the President for Science and Technology and Director of the Office of Science and Technology Policy;

John A. Young, former President and CEO, Hewlett-Packard Co.

Members: Norman R. Augustine, Chairman and CEO, Martin Marietta Corp.

Francisco J. Ayala, Professor of Biological Sciences, Professor of Philosophy, UC Irvine

Murray Gell-Mann, Professor, Santa Fe Institute

David A. Hamburg, President, Carnegie Corp. of NY

John P. Holdren, Professor of Energy, UC Berkeley

Diana MacArthur, Chair and CEO, Dynamac Corp.

Shirley M. Malcom, Head, Directorate for Education and Human Resources, AAAS

Mario J. Molina, Professor of Environmental Sciences, MIT

Peter H. Raven, Director, Missouri Botanical Garden

Sally K. Ride, Professor of Physics, UC San Diego

Judith Rodin, President, University of Pennsylvania

Charles A. Sanders, Chairman and CEO, Glaxo Inc.

Phillip A. Sharp, Head, Department of Biology, MIT

David E. Shaw, CEO, D.E. Shaw and Co.

Charles M. Vest, President, MIT

Virginia Weldon, Senior VP, Public Policy, Monsanto.

Lilian Shiao-Yen Wu, Member, Research Staff, Tho-

information and communication; national security; civilian industrial technology; fundamental science; international science, engineering, and technology; environment and natural resources; transportation, and education and training.

Gibbons also asked the members to provide advice on the agenda items suggested by the OSTP staff and to be available when OSTP called on whatever problem might arise.

Murray Gell-Mann, the Nobel physicist, formerly of

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Published by Science & Government Report, Inc., twice monthly, except once each in January, July, August, and September. Annual subscriptions: Institutions, \$455.00 (two years, \$780.00). Bulk and individual rates upon request. Editorial offices at 3736 Kanawha St. NW, Washington, DC 20015. Tel. (202) 244-4135. For subscription service: PO Box 6226A, Washington, DC 20015. Tel. 1-800-522-1970; in Washington, DC 785-5054. Reproduction without permission is prohibited. SGR is available on University Microfilms International. Claims for missing back issues will be filled without charge if made within six weeks of publication date. ISSN 0048-9581.

PCAST Gets the Inside Word on R&D Plans

Among matters that emerged during the inaugural meeting last week of the President's Committee of Advisors on Science and Technology:

- The White House Office of Science and Technology Policy is giving high priority to studies of scientific and other types of cooperation with six countries "that have the indigenous capacity to produce weapons of mass destruction and the means of their delivery"—Russia, China, India, South Africa, Argentina, and Brazil.

As spelled out in a briefing book for PCAST members, the aim is to set priorities "in such a way as to insure that our cooperation enhances US economic, foreign policy and national security objectives, while advancing US S&T capabilities." Besides destructive potential, criteria for the countries on the list included "a strong national scientific and technological community capable of attracting long-term trade and foreign investment; and they represent an emerging market for United States products and services."

- The Critical Technologies Institute, a RAND offshoot that works for OSTP, is nearing completion of a data base that can "identify all R&D projects in the

federal enterprise," Lionel "Skip" Johns, OSTP Associate Director for Technology, reported to the meeting. Johns said the data base will include project title, budget, and principal investigator, and that he expected that all federal agencies would be on line by mid-December.

- Spending on weapons work at the Department of Energy's three major weapons labs—Los Alamos, Livermore, and Sandia—has declined from 60 percent of their budgets to 40 percent, according to Katherine Gillman, of the OSTP staff. The big new weapons role for the labs, she said, is "stockpile stewardship."

- An issue that deserves more attention, according to OSTP Director Gibbons, is "technology and the changing nature of employment." Referring to a pessimistic speech last year by Robert White, President of the National Academy of Engineering, Gibbons said, "Clearly, technology is affecting employment" (SGR, October 15, 1993: "Engineering Academy Hears Gloomy Views on Economy"). In that speech, White speculated on whether technology had evolved into a job-destroying force. The subject raised by Gibbons did not grab the PCAST members, and the discussion moved to other matters.

PCAST (Continued from Page 2)

Caltech, now at the Santa Fe Institute, recalled his service on a sturdier vehicle for Presidential science advice, the old President's Science Advisory Council. Gell-Mann noted that it met monthly, had a large budget and its own staff, and "did deep studies" that were embodied in book-length panel reports.

Gibbons responded, "Ours is the light brigade that can move and maneuver, compared to tanks." Asked about the lengths of reports to be expected from the members, Gibbons and members of his staff spoke in terms of brevity—a few pages to outside figures of 20 to 30 pages on major matters.

A useful historical perspective, usually absent in amnesiac Washington's obsession with the present moment, was provided by a veteran of the system, David Beckler. Starting under Eisenhower in 1953, Beckler served as Executive Officer of the President's Science Advisory Committee until Nixon abolished science advice at the White House in 1973.

Noting that each President has his own style for dealing with S&T issues and expert advice, Beckler said that "the way you're going is quite right in this present context." He cautioned, however, that it's difficult to accomplish much when meetings are limited to two or three a year. But, like others at the meeting, he sounded optimistic about PCAST's potential, saying, "I'm very much encouraged by the discussion I've heard."

For a group in which physical and natural scientists predominated, perhaps most notable were the frequent references to applying the social and behavioral sciences to the problems on the agenda. Murray Gell-Mann, the physicist,

noted that "many of the problems have very strong components of the social and behavioral sciences." Gell-Mann cited information technology, the "greening of economics," and "the origins of conflict," and wondered aloud whether those disciplines were sufficiently represented on the Committee, which by academic-degree measures numbers two: David Hamburg, a psychiatrist, and Judith Rodin, a psychologist.

The social science issue was fanned by Robert Watson, OSTP Associate Director for Environment, who said, with some passion: "The social sciences have failed miserably to meet the challenges of the environment." Gibbons seconded that view, saying that there's little social-science research on environmental issues.

As closing time approached on the second day of the meeting, Gibbons asked each member for an appraisal of the proceedings. Most scored it as a good beginning.

Sanders, the head of Glaxo, said the meeting was "reassuring," and expressed satisfaction that members of diverse backgrounds had agreed on a list of agenda items. MIT President Vest called it "an unusually helpful start to things." Hamburg, of the Carnegie Corporation, also spoke favorably of the startup session, but lamented the shortage of staff at OSTP.

At the conclusion of the meeting, Gibbons asked the members to jot down their areas of interest so that subcommittees could be formed. He said the next meeting would probably be held toward the end of February. The members departed in a good mood, but unclear about what happens next.—DSG

Maga-Battle: *Nature* Belittles *Science's* Performance

Negative campaigning broke out last week in the upper echelon of scientific journals with a promotional mailing from Britain's *Nature* denigrating the news and scientific coverage in its American counterpart, *Science*.

Nature is tops in both departments, the letter claimed, and *Science* lags badly—assertions angrily denied at *Science*. The mudslinging is a rare event between rivals who usually behave politely about each other in public, though sometimes expressing nasty views in private.

Sounding peeved about the attacks, the News Editor of *Science*, Colin Norman, called it disingenuous, claiming that it arose from envy of *Science's* news coverage and leadership in circulation—about 160,000 per week, compared to some 54,000 for *Nature*, of which 22,000 are in the US. *Science*, he noted has been expanding its international coverage, moving into areas in which *Nature* has long held dominance.

Science is published by the American Association for the Advancement of Science, and is the big attraction of AAAS membership. *Nature*, subtitled "International Weekly Journal of Science," is published by Britain's Macmillan Magazines, Ltd. The two are the world's leading general scientific journals and compete fiercely for important papers in virtually all fields of basic research.

John Maddox, the Editor of *Nature*, told SGR from London that he hadn't seen nor been consulted about the promotional letter, which came out of *Nature's* New York

office, but said, "We're proud of our news section, and in that spirit, a little bit of boasting is not inappropriate." Maddox also accused *Science* of misrepresenting his journal's circulation in promotional material several years ago. In claiming a large lead over *Nature*, Maddox said, *Science* referred only to *Nature's* US circulation, rather than its worldwide count. The man who signed the emotion-arousing letter, James Skowrenski, New York-based President of *Nature's* US operations, refused to discuss it with SGR.

Addressed to "Dear Scientist," the letter invited recipients to subscribe to *Nature*, "the world's most influential weekly scientific journal and receive news items like these, that were never featured in *Science*."

The letter continued (with ellipsis dots as in the original): "Nature reported on the nationwide university campaign to oppose Clinton's budget proposals...and the controversy over the research on rhinos in Namibia...and the questions regarding the Hubble space telescope upgrade. These and many other newsbreaking stories were covered in *Nature* but not in *Science*." The promotional letter then claimed various other news triumphs in which "*Nature* published weeks ahead of *Science*." Among the items:

"When the future of fusion research was up for debate in Congress, a comprehensive analysis of the issue appeared in *Nature*." And, "When the mathematician ran into difficulties on the proof of Fermat's last theorem, *Nature* delivered the
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Agriculture (Continued from Page 1)

White House did indeed submit his nomination to the Senate.

The common thread in the Sequeira-Amador episodes is a lack of interest in agricultural research in the White House Office of Science and Technology Policy (OSTP), which has a lot of maneuvering room in the management of the Clinton Administration's research-policy and science-personnel affairs. OSTP has shown little interest in agricultural research, and initially omitted the Secretary of Agriculture in forming the National Science and Technology Council.

Another factor in the long-running vacancy is the White House's insistence on filling the post with a person of Hispanic background, of whom there are relatively few in the upper ranks of agricultural research and administration. Sequeira is a member of the National Academy of Sciences and has held senior science posts in the Department while on leave from academe. Amador's resume contained fewer credits.

A marathon vacancy on this order would not be quietly tolerated by the Pentagon, the Department of Energy, or any of the government's other big research agencies, or their constituents in the R&D community. When the Bush Administration, enmeshed in abortion politics, left the Directorship of the National Institutes of Health unfilled for over a year, the biomedical community rumbled with discontent that was echoed in the professional and popular press

and among NIH's friends in Congress. Ag research, however, is backward and unsophisticated in pushing its case in Washington, while the Department in which it is housed exceeds most in devotion to nasty infighting and narrowly focused politicking.

Approved by the Senate Agriculture Committee on August 12, Amador's nomination, along with others in the Department, was temporarily held hostage by Senator Jesse Helms (R-NC), champion of an Ag employee who said he was penalized for opposing benefits for partners of gays in the Department.

Helms was eventually placated, the nominations were unblocked, and Amador's confirmation appeared assured. But he had decided to leave, he told SGR, and in early September, he informed Agriculture Secretary Mike Espy that he wanted out.

The search to fill the top science post at the Department of Agriculture is said to be under way once again. But with Secretary Mike Espy on the way out—due to leave at year's end in a mist of ethical improprieties—the circumstances for recruiting are not the best.

On duty as Acting Under Secretary is R. D. Plowman, head of the Agricultural Research Service. He's been in that acting role since January 20, 1993, when the Clinton Administration took office, and the last Assistant Secretary for Science and Education, Duane Acker, resigned.

In-Crowd Picks Its Candidate for NAE Presidency

Coming up, a rarity among professional societies: a spirited contest for the Presidency of the National Academy of Engineering (NAE), a stodgy outfit that prefers to fill its top post in vintage Soviet style with a solo candidate selected by the reigning chiefs.

Following that format, the NAE's Nominating Committee has huddled, and last month nominated just one candidate for President: Cornelius J. Pings, President of the Association of American Universities (AAU), the Washington-based lobby for many of the richer research universities. Ping's selection surprised many in and around the NAE and the AAU, since he's been on board at the university association only since February 1993. Though he didn't sign on there for a specified period, expectations were conditioned by his predecessor's 10 years on the job.

Former Provost and Senior Vice President for Academic Affairs at the University of Southern California, Pings holds a PhD in chemical engineering from Caltech, where he was Professor of Chemical Physics and Dean of Graduate Studies. In ordinary circumstances, Pings would be a shoo-in for the NAE presidency, a fulltime job, for a six-year term, formerly four years, beginning next July 1. But to win the election,

Pings will have to overcome the self-selecting candidate who, to the dismay of the NAE establishment, won't quit: Harold Liebowitz, Dean emeritus and Professor of Engineering at George Washington University.

In 1991, under an NAE bylaw that permits 5 percent of the members to nominate a candidate, Liebowitz got himself on the ballot and received a surprising 42 percent of the vote against the incumbent, Robert White—despite the open opposition of senior NAE officials [SGR, April 15, 1991].

A former Home Secretary of the NAE, Liebowitz depicted the NAE as out of touch with the needs of the engineering profession and unresponsive to national problems. Whatever the merits of his contentions, they elicited a favorable response from a major segment of the membership and put a fright into the NAE establishment.

Liebowitz stirs strong reactions, with supporters enthusiastically praising him for trying to shake up the NAE while others dismiss him as a noisome self-promoter who would be a disaster for the organization. Many members, both in industry and academe, have written warm letters of encouragement to him. SGR has seen people shake their heads in disbelief at the prospect of him as NAE President.

Looking back on the 1991 election, Liebowitz says he suffered from a late start. This time, he's off and running early, claiming 400 supporting signatures for his candidacy, when he needs only 5 percent, or about 87, of the NAE's 1723 members, to get on the ballot as a petition candidate.

There are signs that the NAE management is taking Liebowitz's candidacy very seriously. Pings' selection was announced last month in an unusual letter of endorsement to all members signed by MIT Chairman Paul Gray, who chairs the Nominating Committee, and the NAE Home Secretary, Simon Ostrach, of Case Western Reserve University.

In past elections, the Nominating Committee would announce its choice, and state a few words of praise for the nominee. This time, in pointed fashion, it spelled out the virtues it sought in a candidate. These included "the highest ethical standards," leadership qualities, familiarity with Washington, and staying power for six and possibly 12 years on the job—a plus for Pings, 65, versus Liebowitz, 71.

"The Nominating Committee gave careful consideration to over ninety members for the position of President," the letter to the NAE membership stated, adding, "These members included all names suggested by NAE members and others the Committee members considered possible candidates." Pings was the choice.

Describing Pings as "extraordinarily well qualified to lead the NAE in the years ahead," the letter cited his service to the Academy over the years, and concluded that his record and "recent experience in Washington are qualities which convinced the Nominating Committee that he could be a strong and effective leader of this organization." Liebowitz's candidacy was not mentioned. Mail balloting begins in March.

Nature/Science (Continued from Page 4)

accurate information to its subscribers."

The letter asserted that "more top scientists around the world read and are published in *Nature* than any other scientific journal," adding: "According to the 'Institute for Scientific Information (ISI) Hot Papers Database,' *Nature* published 7 out of 10 of the top papers last year."

Science's Colin Norman said he tried to check out *Nature's* claims of priority in news coverage, but was unable to pinpoint some of the alleged triumphs. "Some weeks we're ahead on one thing and some weeks they're ahead," he said, "but over the course of the year, we're far ahead." Daniel E. Koshland Jr., Editor of *Science*, did not return SGR's call.

Nature's Maddox, after reviewing a copy of the promotional letter, said, "The points it makes are probably legitimate." He noted, "We have a different style. We cover more news stories than they do." Asked whether the promotional letter violated collegiality, Maddox replied, "I would not be deeply offended by it."

In addition to competing for news and research papers, *Science* and *Nature* have repeatedly raided each other for reporters and editors over many years. *Nature's* Washington-based Deputy Editor, Barbara Culliton, was formerly News Editor of *Science*. Jeffrey Mervis, a Deputy News Editor at *Science*, was hired from *Nature's* Washington office. David Dickson, now on the *Nature* news staff in London, formerly served as European correspondent for *Science*. Colin Norman of *Science* is another *Nature* alumnus.

At this point, the one thing sure about the *Nature/Science* flap is that you didn't read about it in either of them.—DSG

Data Book Tells All About NIH Grants and Finances

Must reading for the biomedical community: An official, new collection of data illuminating the grants economy at the National Institutes of Health. Covering 1984-1993, this annual NIH publication, from the NIH Division of Research Grants, is a model of clarity and explanation that other government research-supporting agencies should emulate, but don't. Among the highlights:

- A large proportion of NIH money is concentrated in a small number of states. Of the \$8.5 billion in extramural awards in 1993, 35 percent went to: California, \$1.1 billion; New York, \$919 million, and Massachusetts, \$854 million.
- One hundred universities received 75 percent of NIH's

NIH Extramural Research Trends: Fiscal Years 1984-1993 (148 pp., no charge), order from: National Institutes of Health, Grants Information Office, Westwood Building, Room 449, 5333 Westbard Ave., Bethesda, Md. 20892; tel. 301/594-7249; fax 301/594-7384.

awards. The top 10 in 1993: Hopkins, \$260 million; UC San Francisco, \$186 million; University of Washington, \$174 million; University of Michigan, \$156 million; Yale, \$154 million; University of Pennsylvania, \$146 million; Harvard, \$146 million; UCLA, \$146 million; Washington University, \$132 million; University of Pittsburgh, \$132 million.

- All of the country's 126 medical schools got something from NIH in 1993, but the money was concentrated in a small proportion. The top 20 got a total of \$2 billion, while schools ranked 81 to 126 shared \$215 million.

- With a total budget of \$10.3 billion in 1993, NIH spent 82.5 percent on extramural awards, 11.2 percent on intramural research, and 6.3 percent on "management costs, buildings and facilities, interagency agreements, and other services." The distribution remained constant over the decade.

- Investigator-initiated basic research projects (R01s, in the NIH system) increased from \$2 billion to \$3.7 billion from 1984-1993, but declined as a share of total extramural spending, dropping from 52 to 43.7 percent. The big gainers were special awards for first-time investigators, merit awards for seasoned investigators, and Small Business Innovation Research Awards, under a program mandated by Congress.

- In constant dollars, new R01s received the largest increase, rising from \$112,000 in 1984 to \$130,000 in 1993. But growth dropped 5 percent in 1991-92 and 0.6 percent in 1992-93.

- Overall success rates for competing research projects among all NIH components dropped from 32.1 percent in 1984 to 24.5 percent in 1993. In the latter year, the National Eye Institute was at the top, with 32 percent success rate, followed by the National Institute of Drug Abuse, 31.8 percent. The toughest place to get money was the National Institute of Nursing Research, where the 1993 success rate was 11.3 percent. Back in 1987, when the Nursing Institute held lesser status as a Center, its success rate stood at 30

percent. The National Cancer Institute, the biggest in the NIH family, had a 1993 success rate of 24.6 percent, while the National Institute of General Medical Sciences came in at 29.8 percent.

- Between 1992 and 1993, the overall success rate dropped from 29.6 percent to 24.5 percent, with the decline attributed to a 9 percent increase in the number of applications, to a total of 24,774, and a constricted budget for awards in 1992.

- Snipping at the size of grants remains part of the NIH award process. In 1993, the dollar amount requested on 6148 approved project grants totaled \$1.7 billion. The advisory councils recommended reductions totaling 9.3 percent, which brought the awards down to \$1.6 billion. NIH cut it further, finally awarding \$1.3 billion. (The reduction process is discreetly referred to as a "negotiation").

Job Changes & Appointments

Karen Hein, a Professor at the Albert Einstein College of Medicine, NY, has been appointed Executive Officer of the Institute of Medicine, health-policy wing of the National Academy of Sciences. She succeeds **Enriqueta Bond**, who held the post for six years before becoming President of the Burroughs Wellcome Fund, Morrisville, NC. Hein holds professorships in pediatrics, epidemiology, and social medicine. She will start fulltime at the IOM in January.

Also at the Academy: **Alan Fechter**, Executive Director of the Office of Scientific and Engineering Personnel, National Research Council, retired on October 31 after 11 years with the NRC. Fechter says he plans to "remain involved with the issues" as a consultant and advisor.

Rhea L. Graham, a geologist with Science Applications International Corp., Albuquerque, was sworn in October 17 as Director of the US Bureau of Mines. A Bureau press release says she is the first woman and first African American to head the 84-year-old agency. Graham formerly served as Administrator of the Mining and Minerals Division of New Mexico's Minerals and Natural Resources Department. **Hermann Enzer**, Acting Director of the Bureau for the past two years, returns to the post of Deputy Director.

Daniel Yergin, President of Cambridge Energy Research Associates and well-known as a writer on energy issues, has been appointed Chairman of a newly established Department of Energy Task Force on Strategic Energy Research and Development. Reporting to DOE Secretary Hazel O'Leary, the Task Force will focus on DOE's \$1.7 billion programs of applied research on oil, gas, coal, energy efficiency, fission, and fusion. June 1 is the date for an interim report, with a final report due next October 1. The 31-member Task Force held its first meeting October 12 in Washington.

Paul Gray, Chairman of the MIT Corporation, has been chosen Treasurer of the National Academy of Engineering in a special election to fill the unexpired portion of the term of **Donald J. Atwood**, who died last April. The term expires in June 1997.

In Print

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From the Science Policy Research Division of the Congressional Research Service, part of the Library of Congress, no charge:

The Bayh-Dole Act: Patent Policy and the Commercialization of Technology (94-501 SPR; 17 pp., no charge), in contrast to much griping about commercial greed infesting academe, here's a favorable assessment of the 1980 amendments (PL 96-517) to the Patent and Trademark Act, allowing universities and small businesses to retain title to inventions developed with federal funds. The report acknowledges complaints about "conflict of interest, redirection of research, less openness in sharing of scientific discovery, and a greater emphasis on applied rather than basic research." But, noting studies by the General Accounting Office and others, it credits Bayh-Dole with stimulating industrial investment in university-based research and even credits the legislation with a major role in developing the biotechnology industry. The report was written by Wendy H. Schacht.

Order through a Senator or House Member. Senate switchboard, 202/224-3121; House, 202/225-3121. Cite the Congressional Research Service as the source, with report title and number.

From the National Academy of Sciences:

Organizational Linkages: Understanding the Productivity Paradox (310 pp., \$44.95, plus \$4 for shipping), in hardback, 10 papers examining why national productivity has declined despite billions annually invested in information technology that's supposed to boost productivity. Answer: organizations are inertia-bound and complex systems of relationships that can absorb computerization without appreciable effect on overall operations. "Even if an intervention does in fact augment individual productivity," the report states, "congruent interventions are needed to achieve the desired impact." The report also frowns on indiscriminate downsizing of organizations, asserting that it often destroys useful organizational linkages. The papers were produced by a panel chaired by Douglas H. Harris, Chairman of Anacapa Sciences, Inc., Charlottesville, Va.

A related Academy book published earlier this year, **Information Technology in the Service Society: A Twenty-First Century Lever** (288 pp., \$29, plus \$4 for shipping), cites the benefits of information technology and the difficulties of measuring its effects.

Order from: National Academy Press, 2101 Constitution Ave. NW, Lockbox 285, Washington, DC 20055; tel. 1-800/624-6242; in the Washington, DC, area: 202/334-3313.

From the Research Council of Norway:

Tell'US: Science in Norway (twice yearly; no charge), a colorful magazine, for general readers, with the latest issue (August, 38 pp.) describing research programs on off-shore drilling, the greenhouse effect (a European Union project, in an immense greenhouse in southern Norway), marine biology, etc. Among the news items reported: "In November

1994, the medical research councils in the Nordic countries will pool their experiences to prepare a proposal for common regulations against dishonesty in research." The report continues: "Clear and thoroughly deliberated rules are essential. Norway wishes to avoid such 'witch-hunts' as have occasionally been launched abroad, for instance in the USA. Vague suspicions will not be enough to put a researcher out of work for a longer period."

Order from: The Research Council of Norway, PO Box 2700, St. Hanshaugen, N-0131, Oslo, Norway; tel. (47) (22) 03 70 00; fax 03 70 01.

Directory of Experts: News Sources With Expertise in Psychological and Behavioral Sciences (60 pp., no charge), from the 125,000-member American Psychological Association (APA), an offer of assistance for the press, in the persons of several hundred APA members "who have considerable knowledge about specific topics and are available for interviews." Among the scores of topics for which the members are on tap for consultation: "children," "crime," "families," "dreams," "sex," "social trends," "love," "habits," "men," "women," and "vacations"—for which "see also leisure, travel." Addresses, phone numbers, and special language skills accompany each name. APA says a limited number of copies are available for non-press.

Order from: American Psychological Association, Media Services Staff, 750 First St. NE, Washington, DC 20002; tel. 202/336-5700; fax 202/336-6103.

Office of Research Integrity: Annual Report 1993 (24 pp., no charge), from the Department of Health and Human Service's battered cop shop.

Order from: Office of Research Integrity, Suite 700, 5515 Security Lane, Rockville, Md. 20852; tel. 301/443-5300; fax 301/443-5351.

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In Print

Official reports and other publications of special interest to the research community

(Copies of publications listed here are available from the indicated sources—not from SGR)

From the Congressional Office of Technology Assessment (OTA):

Multinationals and the US Technology Base: Final Report of the [OTA] Multinationals Project (GPO Stock No. 052-003-01386-0; 211 pp., \$14), says that despite the widely held perception of industrial technology going global, the underlying innovative and technical skills usually remain based in the corporate home country where the R&D was performed while products are exported or produced abroad. Overseas affiliates of multinational firms, OTA notes, perform relatively little research. Nonetheless, the report states, foreign investments in the US by multinational firms are increasingly important in world trade, and the US should therefore strengthen its ability to monitor and analyze their role.

OTA also says that with the expansion of US government programs aimed at promoting industrial research, policies should be clarified concerning foreign participation in subsidized R&D activities, such as those sponsored by the National Institute of Standards and Technology and the Pentagon's Technology Reinvestment Project. Professor Lawrence M. Friedman, Stanford Law School, chaired the advisory panel for the report. William W. Keller, of the OTA staff, served as Project Director.

A four-page summary is available without charge from: US Congress, Office of Technology Assessment, Washington, DC 20510-8025; tel. 202/224-8996.

Also available, the previous report in the OTA series, published last year: ***Multinationals and the National Interest: Playing by Different Rules*** (GPO Stock No. 052-003-01338-0; 176 pp., \$10).

Order the full reports from: New Orders, Superintendent of Documents, PO Box 371954, Pittsburgh, Pa. 15250-7954; tel. 202/512-1800; fax 202/512-2250.

From the Government Accounting Office (GAO), no charge:

Information Superhighway: Issues Affecting Development (GAO/RCED-94-285; 76 pp.), reviews basic issues in Superhighway telecommunications legislation, passed by the House but left hanging in the Senate when Congress went home for the elections. The GAO says that equitable pricing must be protected while new competitors and systems are phased in. Also that the Superhighway should be secure against eavesdropping, highly reliable, and equipped for "number portability" to enable subscribers to use competing services. The report asserts, "The Information Superhighway will be developed by a number of diverse entities, none of which are likely to be in a position to address the

challenges from a systems standpoint." Noting that "some mechanism will be needed" to perform that function, the GAO says it will discuss the matter in a forthcoming report. The publication lists nine previous GAO reports in this subject area, dating back to 1989.

Food Safety: Changes Needed to Minimize Unsafe Chemicals in Food (GAO/RCED-94-192; 115 pp.), says federal programs for monitoring chemicals in food are fragmented, often inconsistent, and poorly implemented. Moreover, the GAO says, the system does not penalize or deter violations. The major agencies involved are the Department of Agriculture, the Food and Drug Administration, and the Environmental Protection Agency, which together spend about \$150 million a year in checking chemicals in food products. The report lists scores of related publications, from the GAO, USDA, and other organizations, back to 1972.

Veterans Health Care: Implications of Other Countries' Reforms for the United States (GAO/HEHS-94-210BR; 55 pp.), conducted in anticipation of the great health-care debate that fizzled on Capitol Hill, this one examines veterans health-care programs in Australia, Canada, Finland, and the UK—chosen because separate systems for veterans were in existence when these countries adopted universal health-care programs.

Because of the aging and shrinking of their veterans populations, the GAO reports, Australia, Canada, and the UK have closed or transferred veterans hospitals to their national systems, and have deemphasized acute care in favor of long-term care. Finland's veterans program retains acute-care services, the GAO noted, but is also expanding long-term care in the primary veterans hospital. The GAO concludes that, even without universal health care, the VA system is losing its patient base to age and community-based care.

"Other countries," the report states, "have made the transition from direct providers to financiers of veterans health care without losing the special status accorded veterans." The GAO report does not address the US veterans lobby, which has squelched all efforts to reform, let alone eliminate, an inferior and expensive hospital system that long ago outlived its usefulness.

Order from: USGAO, PO Box 6015, Gaithersburg, Md. 20884-6015; tel. 202/512-6000; fax 301/258-4066.

From Gale Research, Inc.

Government Research Centers (1350 pp., \$450.00), 8th edition of a standard reference work (last published in 1992), provides basic information about some 4200 US and Canadian government research organizations, ranging from the administrative offices of research-supporting agencies to major research centers, laboratories, field stations, etc., in all departments of government and fields of R&D. Entries include full name and address of the organization, name of director, programs and publications, e-mail and fax addresses, specialized equipment, library facilities, etc.

Order from: Gale Research, Inc. PO Box 33477, Detroit, Michigan 48232-5477; tel. 1-800/877-4253; fax 1-800/414-5043.

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